## Literature Cited

Blankinship, J. W. 1907. Plantae Lindheimerianae Part III. Missouri Bot. Gard. 18th Annual Rep. 123-224.
Harrington, H. D. 1954. Manual of the Plants of Colorado for the Identification of the Ferns and Flowering Plants of the State. Denver: Sage Books. x, 666 p.
McVaugh, R. 1961. Euphorbiaceae Novae Novo-Galicianae. Brittonia 13: 145-205.
Mueller Argoviensis, J. 1866. Euphorbiaceae (pars). DC., Prodr. 15 (2) : 189-1286.
Pax, F. and K. Hoffmann. 1919. Euphorbiaceae-Crotonoideae-Acalypheae-Plukenetiinae. Pflanzenreich IV 147 IX (Heft 68, pars primus). 108 p .
Shinners, L. H. 1958. Spring Flora of the Dallas-Fort Worth Area Texas. Dallas: Privately published. v, 514 p.
1961. Tragia nepetaefolia var. leptophylla instead of var. ramosa (Euphorbiaceae). Southwest. Nat. 6:101.
Torrey, J. 1859. Botany of the Boundary in Emory, Wm. H., Report on the United States and Mexican Boundary Survey, Washington. II: 270 .

## A NEW SPECIES OF HAPLOPAPPUS, SECTION BLEPHARODON

Ray C. Jackson

## Haplopappus texensis sp. nov.

Herba perennis 3-7 dm. alta; caulibus pluribus (vel unica), erectis, striatis, tomentosis vel glabratis in maturitate; foliis alternis, sess!libus, ad 7 cm . longis et 1.3 cm . latis, oblanceolatis, lobis dentibusque ad apeces spinuloso-mucronatis, insuper in maturitate sparse tomentosis vel glabratis, subtuse tomentosis; capitulis pluribus, cymosis; disco dia. $5-8 \mathrm{~mm}$., receptaculis fimbriatis; phyllariis anguste lanceolatis, acuminatis, ad apeces spinulosis, dorsis tomentosis, ca. 5 mm . longis et 1 mm . latis; radiis 22-28, 1-1.5 cm . longis; disci corollis glabris, $5.5-6 \mathrm{~mm}$. longis; achaeniis turbinatis, pubescentis, $2.4-2.8 \mathrm{~mm}$. longis; pappis $6-6.8 \mathrm{~mm}$. longis.

Perennial herb, 3-7 dm. tall, stems one to several, erect, striate, tomentose or glabrate with age; leaves alternate, sessile, up to 7 cm . long and 1.3 cm . wide, oblanceolate, the basal ones lobed, the median ones dentate, lobes and teeth spinulose-mucronate, sparsely tomentoso above or glabrate with age, tomentose below; heads several, cymosely arranged; disc diam. 5-8 mm., receptacle frimbriate; phyllaries narrowly lanceolate, acuminate, tomentose on the backs, spinulose at the
tips, about 5 mm . long and 1 mm . wide; rays 22-28, 1-1.5 cm . long; dise corolias glabrous, $5.5-6 \mathrm{~mm}$. long; pappus $6-6.8 \mathrm{~mm}$. long. Chromosome number $n=4$.

TYPE: Brooks County, Texas, sandy soil along railroad right-ofway about 7.5 miles south of Falfurrias, Jackson 2938-1 (KANU), August 7, 1959.

Haplopappus texensis is thus far known only from the type locality where several hundred plants were observed. A number of plants have been under cultivation since the species was first collected in late August of 1957. Numerous attempts to cross the species with morphologically related taxa of the Blepharodon section of Haplopappus have been unsuccessful.

On gross morphological characters, $H$. texensis may be distinguished from related perennial species by its erect growth habit, greater height, and less deeply divided leaves. - UNIVERSITY OF KANSAS, LAURENCE, KANSAS

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## AGROPYRON HYBRIDS AND THE STATUS OF AGROPYRON PSEUDOREPENS ${ }^{1}$

Richard W. Pohl

A number of specimens of Agropyron from Iowa (listed in Table 1) have rhizomes similar to those of $A$. repens (L.) Beauv. or A. smithii Rydb., but bear narrow spikelets with enlarged, persistent glumes, resembling those of the cespitose A. trachycaulum (Link) Malte. Examination of these specimens shows that they have low seed set, ranging from $0-67 \%$ in the specimens examined. Pollen from these specimens was mounted in lacto-phenol and cotton blue. It was found that the pollen of each of these specimens was collapsed, shrunken, and without stainable contents. (See Figure 1).

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[^0]:    ${ }^{1}$ Journal paper J-4249 of the Iowa Agricultural and Home Economic Expt. Station, Ames. Project 1136. The facilities of the Iowa State University Herbarium, supported by the Industrial Science Research Institute, were used in this study. The author wishes to acknowledge the loan of specimens from the U. S. National Herbarium, Jason R. Swallen, Head Curator, and from The Gray Herbarium.

